

Smallpox Virus

Louisiana Office of Public Health Laboratory Services (LA SPHL) (504) 568-5371 or (504) 568-8102, 24 Hour Pager (504) 374-6669 or (877) 309-2867

Louisiana Office of Public Health Infectious Disease Epidemiology
(800) 256-2748 (24 hours)

Contact the Louisiana State Public Health Laboratory (LA SPHL) to obtain specific instructions prior to collecting any samples.

The LA SPHL is not equipped to process any specimens for smallpox.

All specimens will be transported to the Centers for Disease Control. Any specimen submitted from patient with vesicular pox infection will be tested for varicella, vaccinia, and other orthopox viruses such as monkeypox. The following protocol of specimen collection and shipping is for suspected smallpox cases or for submitting specimens from patients suspected of varicella-chickenpox, vaccinia, or other orthopox viruses such as monkeypox.

Remember that these samples may be highly infectious! Extreme caution should be taken in collecting, preparing for shipment and transporting any material suspected of being contaminated with a biological agent.

Specimen Collection and Transport

Clinical:

Specimens should be collected by someone who has recently been vaccinated for Smallpox, or is vaccinated that day, and who wears the following protective equipment: disposable surgical scrub suit, surgical cap, water proof gown with full sleeve coverage, double surgical gloves, N-95 masks or higher, protective eyewear or face shield and shoe covers

Suitable specimens include uncoagulated blood, serum, drainage from skin lesions/scrapings, touch prep slide from skin lesions, post-mortem specimens (skin, spleen, lymph nodes, tonsils, liver, lung, kidney and heart). Tissues should be divided into two parts. The first half should be placed in 10% formalin and kept at room temperature. **DO NOT FREEZE FORMALIN-FIXED SPECIMEN.** Representative fragments of tissues listed above should be collected using aseptic technique and placed in a sterile 1.5 – 2.0 ml screw capped plastic vial with an O-ring. **DO NOT ADD**

TRANSPORT MEDIUM. Refrigerate specimen if shipment occurs within 24 hours; otherwise freeze the specimen. A full report of the gross pathology findings should accompany necropsy specimens submitted for testing.

To obtain vesicular or pustular fluid, it is often necessary to open lesions with the blunt edge of a scalpel. The fluid can then be harvested on a Dacron swab. Fallen scabs or scabs picked off with forceps should be deposited in a plastic externally threaded screw cap tube with no transport media and sealed with adhesive tape. This tube, in turn, should be enclosed in a second durable, watertight container. Arrangements will be made to transport the specimens to CDC.

For further information check
www.cdc.gov/ncidod/monkeypox/infectioncontrol.htm

All primary specimen containers must be labeled with patient's information and type of specimen. Store and ship all non-tissue samples using ice packs. Ship swabs dry. Fixed tissue specimens should be sent at room temperature. Do not freeze fixed tissue. Frozen tissue should be shipped at or below -20 C with dry ice.

Environmental samples:

At this time environmental sampling, if performed, would be situation specific. No standardized testing procedures are available. Consult the LA SPHL.

Testing available:

Polymerase Chain Reaction (PCR) for detection for varicella (chickenpox), vaccinia and orthopox viruses, IgG and IgM antibody assay for varicella (chickenpox)

IMPORTANT NOTE: Submitting a follow up specimen is recommended if you suspect your patient has one of these diseases. The molecular biology assay, at this time, is not sufficiently accurate for specific diagnosis of vaccinia or orthopox. Any presumptive positive specimen will be forwarded to the CDC. Specimens sent to the LA SPHL will be tested to rule out **varicella, vaccinia and monkeypox** virus infection before they forwarded to the CDC.

Reporting:

All reporting times are the minimum time. Any individual specimen could take longer.

Prior approval for PCR testing of varicella, vaccinia and monkeypox assays by the LA Office of Public Health **State Epidemiologist (800) 256-2748** is necessary.

Molecular biology assay for varicella, vaccinia, or other orthopox viruses will be reported approximately 8 hours after specimen is received at the SPHL.

IgG and IgM assay for varicella (chickenpox) will be reported approximately 6 working hours after specimen is received at the SPHL.

Smallpox specimen will be sent to the CDC for testing. Reporting time is unavailable.